

REMARKS

Claims 1-3, 6-10, 13-45 and 47-128 are pending in this application. Claims 34-36, 38-42 and 69-122 have been withdrawn from consideration by restriction requirement. Claims 4, 5, 11, 12 and 46 have been cancelled without prejudice or disclaimer of subject matter, and no further mention will be made of those claims. The claims remaining in this application and under consideration have been amended to define still more clearly what Applicant regards as his invention. Of the claims under consideration, Claims 1, 8, 37, 43 and 123 are independent claims.

A Letter Transmitting Corrected Drawings, as required by the Office Action, in being filed herewith. In addition to the change required in the Office Action, various changes have been made to Figs. 3, 7 and 8 to conform them to the specification.

A substitute specification, and a marked copy of the original specification showing the changes, are being prepared and will be submitted shortly.

Claims 8, 37 and 124 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite, on the basis of use of the phase "or the like". Applicant submits, however, that that phrase does not appear (and never did appear) in any of those claims. Accordingly, withdrawal of this rejection is respectfully requested.

In addition, Claims 1-3, 6-10, 13-33, 37, 43-45, 47-68 and 123-128 were rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent 5,745,121 (Politis).

The aspect of the invention to which independent Claim 1 is directed, is a method of creating an image. The image is formed by rendering a plurality of graphical

objects to be composited according to one or more compositing operations. Each object has a predetermined outline. Each compositing operation is at least defined by one or more operands, and each said operand represents one of the graphical objects or a result of another of the compositing operations. The method determines an active region for each of the graphical objects, and each of the active regions is substantially defined by at least one region outline following at least one of the predetermined outlines or parts thereof. A further active region corresponding to each of the compositing operations is then determined. The further active region is at least dependent upon the active region associated with each operand of the corresponding compositing operation. A clip region is determined for each operand of each of the compositing operations, each clip region representing a minimum region in which a corresponding operand contributes to the image and being dependent on a further clip region representing the result of an associated compositing operation. The method then determines an effective region for each of the compositing operations, wherein the effective region for a particular corresponding compositing operation is equal to the intersection of the further clip region of the particular corresponding compositing operation and the active regions associated with the operands of the particular corresponding compositing operation. The compositing operations are then applied substantially to the effective regions to create the image.

As described at page 28, lines 25-29 of the present specification, one way in which the effective regions for each node in an expression tree representing the image can be calculated, is by setting the effective region for a node to the intersection of the node's clipping region and active region, if the node is a leaf node. Otherwise, if the node is an

operation node, the effective region is set, in this approach, to the intersection of the active regions of the node's operands and the node's clipping region. Further, as described at page 17, lines 13-15, each clip region represents a minimum region in which each sub-expression associated with the corresponding compositing operation contributes to the image.

Accordingly, the method of Claim 1 reduces the amount of work done by a rendering apparatus by calculating for each compositing operation in an expression to be rendered, the smallest region of the page in which the operation needs to be performed (i.e., the effective region).

The Office Action contends at point 5 that the feature "wherein said effective region is equal to the intersection of the clip and active regions of said particular corresponding compositing expression", is disclosed in *Politis '121* at column 9, lines 16-17. However, Applicant submits that *Politis '121* at column 9, lines 16-17, fails to disclose or teach this particular element of Claim 1.

Politis '121 relates to a system, method and language for compositing or creating images. *Politis '121* suggests at column 9, lines 31- 43, that a linear render list can be first generated from an expression tree representing an image. *Politis '121* states that it is inefficient to scan all of the linear render lists for every scan line, and that an active list can be maintained containing all those graphical elements of the linear render list that effect a currently to be rendered scan line. Further, the *Politis '121* method terminates a corresponding clipping operation for a compositing operator when used in conjunction with an opaque object (at column 3, lines 62-64, for example). However, Applicant submits that

Politis '121 is totally silent on the determination of an effective region for a particular corresponding compositing operation, where the effective region for a particular corresponding compositing operation is equal to the intersection of the further clip region of the particular corresponding compositing operation and the active regions associated with the operands of the particular corresponding compositing operation.

It is submitted that the mere statement that all those graphical elements of the linear render list that effect a currently to be rendered scan line, should be rendered, does not disclose the particular claim element of Claim 1 of the calculation of an effective region where the effective region for a particular corresponding compositing operation is equal to the intersection of a further clip region of the particular corresponding compositing operation and the active regions associated with the operands of the particular corresponding compositing operation. There is no discussion in *Politis '121* of calculating such an intersection region. Further, Applicant submits that *Politis '121* does not teach or even suggest, explicitly or implicitly, the particularly feature of the method of Claim 1 of determining a clip region for each operand of each of the compositing operations, with each clip region representing a minimum region in which a corresponding operand contributes to the image and being dependent on a further clip region representing the result of an associated compositing operation.

For all these reasons, Applicant submits that independent Claim 1 is in condition for allowance. For similar reasons to those discussed above for independent Claim 1, Applicant also submits that independent Claims 8, 37, 43, 123 and 126 are also in condition for allowance.

A review of the other art of record has failed to reveal anything which, in the Applicant's opinion, would remedy the deficiency of the art discussed above as a reference against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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